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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/896,132	06/29/2001	Stephen R. Kennon	OBJ1110-3	5446
34456	7590	12/21/2004	EXAMINER	
TOLER & LARSON & ABEL L.L.P. 5000 PLAZA ON THE LAKE STE 265 AUSTIN, TX 78746			FREJD, RUSSELL WARREN	
			ART UNIT	PAPER NUMBER
			2128	

DATE MAILED: 12/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/896,132

Applicant(s)

KENNON ET AL.

Examin r

Russell Frejd

Art Unit

2128

-- The MAILING DATE f this c mmunicati n appears on the cover sheet with th corresp ndence address --
Period f r Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Pri rity under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4.1.02</u> . | 6) <input type="checkbox"/> Other: _____ |

In re Application of Kennon et al.

Examination of Application #09/896,132

1. Claims 1-20 of application 09/896,132, filed on 29-June-2001, are presented for examination. The Examiner respectfully notes that the Wheeler et al. reference does not contain page numbers, a fact that is already known by Applicant (see the 1449). In light of this, the Examiner has numbered the pages in order from 1-11 for clarification purposes.

Claim Rejections under 35 U.S.C. § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The invention claims (claim 1 preamble), *"A method for modeling a system using finite element techniques."*

4. The Manual Patent Examining Procedure (hereinafter MPEP) provides guidelines, in Section 2106(IV)(B)(2)(b), that to be statutory, the invention must be analyzed in view of whether or not it can be classified as a series of steps to be performed on a computer, wherein the steps of the process are evaluated to determine if they perform Independent Physical Acts or Manipulate Data Representing Physical Objects or Activities, in order to achieve a practical application with a useful, concrete and tangible result; and if not, does the invention merely manipulate an abstract idea or solve a purely mathematical problem without any limitation to a practical application.

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MPEP Section 2106(IV)(B)(2)(b)(I) further provides that, in regard to Independent Physical Acts (Post-Computer Process Activity), a process is statutory if it requires physical acts to be performed outside the computer independent of and following the steps to be performed by a programmed computer, where those acts involve the manipulation of tangible physical objects and result in the object having a different physical attribute or structure. Furthermore, the Manipulation of Data Representing Physical Objects or Activities (Pre-Computer Process Activity) defines a statutory process as one that requires the measurements of physical objects or activities to be transformed outside of the computer into computer data, where the data comprises signals corresponding to physical objects or activities external to the computer system, and where the process causes a physical transformation of the signals which are intangible representations of the physical objects or activities.

5. In view of the foregoing, and other considerations, the Examiner respectfully contends that the claims of the present invention do not meet the criteria established above for a statutory process. The reasoning behind this determination is:

5.1 The claimed invention, "*A method for modeling a system using finite element techniques*", does not require physical acts to be performed outside the computer, those acts being independent of and following the steps to be performed by the computer, those acts further involving the manipulation of tangible physical objects which result in the object having a different physical attribute or structure. For this reason, the claimed invention does not meet the Independent Physical Acts (Post-Computer Process Activity) requirement.

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5.2 Further In regard to independent claim 1, the Examiner respectfully contends that the claims fail to require measurements of physical objects to be transformed outside of the computer into computer data; and thereby do not meet the Manipulation of Data Representing Physical Objects or Activities (Pre-Computer Process Activity) requirement.

5.3 MPEP Section 2106(IV)(B)(2)(b)(ii) provides that a statutory computer process is determined not by how the computer performs the process, but by what the computer does to achieve a practical application with a useful, concrete and tangible result. For example, a computer process that simply calculates a mathematical algorithm that models noise is nonstatutory, while a claimed process for digitally filtering noise employing the mathematical algorithm is statutory. The long line of cases in this area that are referred to in MPEP Section 2106(IV)(B)(2)(b)(ii) exemplify this requirement, by utilizing in the claim language, terms such as controlling, executing, changing and removing. In view of the aforementioned requirement, the Examiner respectfully contends that the claim language of independent claim 1 does not claim a practical application, that language claiming: **defining** (emphasis added) a plurality of finite element meshes, **defining** a property associated with each of the finite element meshes, **associating** an evaluator with each of the finite element meshes, and **generating** a solution for each of the finite element meshes.

5.4 For at least these reasons, the Examiner respectfully posits that the claims of the present invention do not meet the criteria for a statutory process. Accordingly, the *method for modeling a system using finite element techniques*, is determined to be a method consisting solely of mathematical operations, converting one set of numbers (the plurality of finite element meshes) into another set of numbers (the solution for each of the finite element meshes), whereby the

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method does not manipulate appropriate subject matter, and thus cannot constitute a statutory process (MPEP Section 2106(IV)(B)(2)(c)).

Response Guidelines

6. A shortened statutory period for response to this action is set to expire **3 (three) months and 0 (zero) days** from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned (see MPEP 710.02, 710.02(b)).

7. **Any response to the Examiner in regard to this non-final action should be**

directed to: Russell Frejd, telephone number (571) 272-3779, Monday-Friday from 0530 to 1400 ET, **or** the examiner's supervisor, Jean Homere, telephone number (571) 272-3780.

mailed to: Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to: (703) 872-9306

Hand-delivered responses should be brought to 220 South 20th Street, Crystal Plaza Two, Lobby, Room 1B03, Arlington, VA., 22202.

Date: 13-December-2004



The signature is handwritten in cursive, reading "RUSSELL FREJD".

**RUSSELL FREJD
PRIMARY EXAMINER**